

**PROGRESS REPORT ON THE HOPI TRIBE'S INVOLVEMENT IN THE  
TRANSITION TOWARD IMPLEMENTATION OF THE PREFERRED  
ALTERNATIVE OF THE GLEN CANYON DAM  
ENVIRONMENTAL IMPACT STATEMENT**

Prepared and Submitted by

Kurt E. Dongoske  
Tribal Archaeologist  
Cultural Preservation Office

Reviewed and Approved by

Leigh Jenkins, Director  
Cultural Preservation Office  
The Hopi Tribe

Submitted to

Dr. Lawrence D. Garrett, Chief  
Grand Canyon Monitoring and Research Center  
2255 N. Gemini Drive, Room 341  
Flagstaff, Arizona 86001

January 29, 1997

## Introduction

In 1991 the Bureau of Reclamation and the Hopi Tribe entered into a Cooperative Agreement No. 1-FC-40-10560, entitled Cooperative Agreement for Hopi Tribe Coordination with the Glen Canyon Environmental Studies and the Glen Canyon Environmental Impact Statement, as a means to allow for Hopi Tribal involvement in the technical programs. This involvement focused on the technical areas of archaeological resource studies, cultural resource coordination, ethnography, hydrology, and GCD-EIS coordination. The Hopi Tribe participated as a full cooperating member of the Cooperating Committee directing the overall GCD-EIS program.

In 1992, the Bureau of Reclamation initiated the Section 106 process of the National Historic Preservation Act of 1966, as amended. This process identifies that any change in the operations of the Glen Canyon Dam is considered a federal undertaking and as such requires the identification, evaluation, and consideration of all historic properties within the area of potential effect of that undertaking. This process also mandates consultation with concerned Native American Tribes for the identification, evaluation, and treatment of historic properties of significance to these Native American Tribes. The Hopi Tribe participated in this process to identify, evaluate, monitor, and be an equal participant in the long term management of all historic properties, sacred areas, and areas of traditional Hopi cultural use that are within the Glen Canyon Dam's area of potential effect. The Hopi Tribe is a Consulting Signatory to the Programmatic Agreement for the Glen Canyon Dam which specifically delineates the responsibilities of the Bureau of Reclamation.

The Hopi Tribe's concerns include not only cultural resource aspects, but also the impacts of operations of Glen Canyon Dam on the biological and physical processes and resources, including the endangered fish in the mainstem Colorado River and in the Little Colorado River (LCR).

In March of 1995 the Final Environmental Impact Statement for the Operation of the Glen Canyon Dam was issued by the Bureau of Reclamation. On the following September 30, 1995 the Cooperative Agreement No. 1-FC-40-10560 between the Hopi Tribe and the Bureau of Reclamation was successfully concluded. The period beginning October 1, 1995 and ending with the Secretary of the Interior signing the Record of Decision for the Glen Canyon Dam Final Environmental Impact Statement and the establishment of the federal advisory commission to be known as the Adaptive Management Work Group is considered a transition period in which efforts will be activated toward implementing the preferred alternative. During this period, the Bureau of Reclamation has entered into a Cooperative Agreement with the Cultural Preservation Office of the Hopi Tribe for the collection and analysis of cultural resources along the Colorado River, Glen and Grand Canyons below Glen Canyon Dam, Arizona. This Cooperative Agreement No. 1425-96-FC-81-05007 and entitled Glen Canyon Dam Transition Monitoring Program is to be a part of the Transition Monitoring and Long-term Monitoring studies that are being conducted to determine future

options for operations of the Glen Canyon Dam.

This Cooperative Agreement identifies a cultural resource monitoring program that will collect information for the Glen Canyon Dam Programmatic Agreement and the Glen Canyon Dam Transition Monitoring program being conducted to determine future cultural resource impacts related to the operations of the dam. The Hopi Tribe will benefit from the augmentation of its information data base on the cultural resource knowledge of the Colorado River and provide an avenue for dispersion of scientific information to the tribal population and the elders.

Two major areas of monitoring and coordination are proposed under this agreement: 1) Cultural Resource Monitoring and 2) Transition Monitoring and Adaptive Management Coordination. The primary objectives of these work areas are to ensure that a consistent and appropriate level of monitoring of the cultural resources occurs during the Transition Monitoring period and that the Hopi Tribe is provided the resources to adequately participate in the Transition Monitoring and Adaptive Management programs.

The Hopi Tribe's scope of work encompasses the implementation of activities related to the transition period until the finalization and implementation of the Final Glen Canyon Dam Environmental Impact Statement Record of Decision and the establishment of the Adaptive Management Work Group. The scope of work includes the monitoring of sacred places and resources of traditional cultural importance to the Hopi people within the Glen and Grand Canyons, and guidance and development of specific technical and cultural resource recommendations. The primary focus of the Hopi Tribe's involvement is concentrated on providing a traditional Hopi perspective and related concerns within all aspects of the transition period in order to develop the appropriate monitoring, management, and research needs that are sensitive to a Hopi cultural perspective.

According to the objectives outlined in the cooperative agreement, this progress report addresses the advancement and action that has been accomplished by the Cultural Preservation Office for the period beginning October 1, 1996 and ending December 31, 1996, encompassing the first quarter of the 1997 fiscal year, towards fulfillment of those objectives. This report fulfills the December 1996 deliverable requirement of the cooperative agreement between the Bureau of Reclamation and the Hopi Tribe.

### **Progress Completed Towards Fulfillment of Objectives**

The first objective is to represent the Hopi Tribe in all Transition Work Group meetings and associated technical work subgroup meetings during the transition period and the concurrent development of the Long-term Monitoring and Adaptive Management Programs and the development and implementation of the Research Center. Efforts to accomplish this objective by the Cultural Preservation Office, during this reporting period, consisted of representing the Hopi Tribe at one Transition Work Group meeting and three Grand Canyon Monitoring and Research Center Subgroup meetings.

## **Grand Canyon Monitoring and Research Center Subgroup Meetings**

On 08 October 1996, Kurt Dongoske, representing the Hopi Tribe, attended a meeting of the Grand Canyon Monitoring and Research Center held at the Fountain Suites Hotel, Phoenix, Arizona. During this meeting the plan for transitioning the monitoring and management responsibilities of the Glen Canyon Environmental Studies to the Grand Canyon Monitoring and Research Center were presented and discussed. The Grand Canyon Monitoring and Research Center assured the meeting participants that every effort will be made to ensure a successful transition so that there will be no loss or hiatus of monitoring data, samples, or other pertinent resource information. Also the Grand Canyon Monitoring and Research Center proposed its plan to draft the Long Term Strategic Approach Plan regarding the monitoring and research in the Grand Canyon ecosystem. The initial draft of the Long Term Strategic Approach Plan will receive an independent scientific review by the National Biological Survey's Mississippi River Monitoring Team. Also during this meeting the management objectives, identified by the Management Objectives Subgroup, were discussed and the corresponding proposed research and information needs were revised. The role of the Grand Canyon Monitoring and Research Center in the assisting in achieving these management objectives were also discussed.

On 23 October 1996 Kurt Dongoske and Mike Yeatts attended a planning meeting of the Grand Canyon Monitoring and Research Center held at the USGS Flagstaff Field Office. At this meeting the participants reviewed and revised the Monitoring and Research Planning Resource Sheets to reflect the current state of the scientific knowledge, stakeholder information needs, scientists' monitoring statements and the scientists' research questions. Mr. Yeatts and Mr. Dongoske participated in the subgroup which discussed the physical and cultural resource sheets.

On 20 November 1996, Kurt Dongoske attended a meeting of the Grand Canyon Monitoring and Research Center held at the Embassy Suites, Phoenix, Arizona. At the beginning of this meeting Dr. Garrett introduced an ambitious schedule of presenting the Long Term Strategic Approach Plan to the Grand Canyon Monitoring and Research Center Planning Subgroup by January of 1997. Dr. Garrett was also hopeful that the Adaptive Management Work Group would formally be established as an federal advisory group by that time so that it could officially review the plan. This meeting was also specifically designed to get input from the Grand Canyon Monitoring and Research Center Subgroup regarding the Grand Canyon Monitoring and Research Center's plan to do an assessment of Lake Powell. The subgroup's reaction will be utilized by the Grand Canyon Monitoring and Research Center as a barometer on how the Transition Work Group might respond at tomorrow's meeting. The Grand Canyon Monitoring and Research Center proposes an assessment of Lake Powell focusing on the impacts of dam operations on the downstream resources by assessing the physical, chemical, and biological components of Lake Powell. Bill Davis and Wayne Cook criticized the assessment because they feel that it is beyond the scope of the Act or the intent of Congress in passing the Grand Canyon Protection Act. They further added that the Lake Powell reservoir has nothing to do with the operating criteria of the dam in

terms of a water delivery system. Dr. Garrett also stated that the Grand Canyon Monitoring and Research Center will also considering implementing and completing a major syntheses of all resource data within the next 2 years.

### **Transition Work Group Meeting**

On 21 November 1996, Kurt Dongoske and Mike Yeatts, representing the Hopi Tribe, attended a meeting of the Glen Canyon Dam Transition Work Group, held at the La Quinta Inn, Phoenix, Arizona. The morning portion of the meeting consisted of a presentation of "adaptive management" by Dr. Kai Lee. After Dr. Lee's presentation the issue of the Adaptive Management Work Group charter was presented by Steve Lloyd of the Bureau of Reclamation. Based on comments from the Transition Work Group, the charter has had revisions to the background and purpose, the duration, the defined duties, and membership sections. The Bureau of Reclamation made these changes and submitted the revised charter to the Solicitors Office for review. Additionally, the research proposal for the Lake Powell assessment and the up-coming budgets were discussed. Updates regarding the status of temperature control studies, endangered species (ESA), the Grand Canyon Monitoring and Research Center, and the Programmatic Agreement activities were presented.

The second objective is to provide transition monitoring and management consultation to the Bureau of Reclamation concerning archaeological, sacred, and places and resource of traditional importance within the context of a Hopi cultural perspective. Assistance and consultation will be provided to the Bureau of Reclamation as part of their National Historic Preservation Act, Section 106 responsibilities pursuant to the Glen Canyon Dam Operations Programmatic Agreement. Principally this objective has been accomplished through the Hopi Tribe's participation in the meetings of the signatories to the Programmatic Agreement and through the review and comment on the National Park Service's cultural resource monitoring reports and annual report. The principal Hopi representatives to the Programmatic Agreement meetings are Mr. Dongoske and Mr. Michael Yeatts, Hopi/GCES Archaeologist.

On 16 & 17 October 1996, Mr. Yeatts and Mr. Dongoske attended a working meeting of the Programmatic Signatories at Bilby Hall, Northern Arizona University, Flagstaff. The purpose of the meeting was to review and redraft portions of the Historic Preservation Plan. The specific goal of this effort was to integrate the various portions of the Historic Preservation Plan that had been assigned to individuals to redraft. However, much of the actual time was spent revising the chapters rather than integrating. The meeting resulted in specific individuals being assigned the task of completing portions or whole chapters of the Historic Preservation Plan and to send them to the Bureau of Reclamation in Salt Lake City.

On 01 November 1996, Kurt Dongoske, Mike Yeatts met with Ruth Lambert, Cultural Resources Program Manager, Grand Canyon Monitoring and Research Center, and Norm Henderson, Glen Canyon National Recreation Area, National Park Service, at the USGS Flagstaff Field Office. The purpose of this meeting was to discuss and further develop

Chapter 4, The Grand Canyon Monitoring and Research Center, of the Historic Preservation Plan. At this meeting, an attempt was made to clarify the various roles of the Grand Canyon Monitoring and Research Center and the Bureau of Reclamation in relation to the implementation of the Programmatic Agreement. Many of the issues revolved around how the Bureau of Reclamation viewed the functioning of the Grand Canyon Monitoring and Research Center in terms of maintaining the Bureau's responsibility for compliance with section 106 of the National Historic Preservation Act as delineated in the Programmatic Agreement.

On 26 November 1996, Mr. Dongoske and Mr. Yeatts attended a meeting of the Programmatic Signatories which was held in Bilby Hall on the campus of Northern Arizona University, Flagstaff. The topics discussed at this meeting included the Programmatic Signatories participation in the George Wright Society meetings in Albuquerque. The symposium proposal submitted, on behalf of the Programmatic Signatories, by Jan Balsom, Grand Canyon National Park, has been accepted by the George Wright Society. Additionally, the National Park Service's work proposal for FY97 was presented. Archaeological site mapping and remedial action are scheduled for the February river trip. Data recovery is planned at six archaeological sites and the Hopi Tribe, under the primary direction of Mike Yeatts, is cooperatively working with the Grand Canyon National Park to develop the data recovery proposal and implement the activities. Additionally, stabilization work at designated archaeological sites utilizing the expertise of the Zuni Conservation Team will accompany both spring river trips, one in February and one in April. Signa Larralde requested the traditional cultural property identification and eligibility assessments from the Tribes by 15 January. Also she would like the Tribes' recommendations regarding nominating the Grand Canyon to the National Register of Historic Places as a historic district. Signa also stated that next FY98 contracts and proposals for work related to the Programmatic Agreement will be handled through the Grand Canyon Monitoring and Research Center. Ms. Lambert should be requesting the proposals and budgets from the Tribes sometime next spring.

Also during this reporting period Mr. Yeatts spent a significant amount of his time working rewriting and revising the assigned chapters for the Historic Preservation Plan. For the Historic Preservation Plan, Mr. Yeatts produced and submitted rewrites of chapters 7 and 8, and also contributed significant portions of other chapters. This work was completed and submitted to the Bureau of Reclamation, Upper Colorado Region Office in Salt Lake City on 18 and 22 November 1996 for integration into the remainder of the document.

Based on reviews obtained for the draft of the Hopi research surrounding the test Beach Habitat Building Experimental Flow, Mike Yeatts revised and produced the final draft of the Hopi research report, entitled *High Elevation Sand Deposition and Retention from the 1996 Spike Flow: An Assessment for Cultural Resources Stabilization*. This final draft was submitted to the Bureau of Reclamation on 10 December 1996. Additionally, this report was provided to the Grand Canyon National Park on 13 December 1996 for inclusion into the overall cultural resources report on the Beach Habitat Building Experimental Flow.

Another major project completed by Mike Yeatts during this reporting period, was the preparation of the data recovery plan for the six archaeological sites that are currently being impacted by the operation of Glen Canyon Dam. These sites are to be excavated in the spring of 1997 in conjunction with the National Park Service, Grand Canyon National Park, spring monitoring trips. The proposal was submitted for review to the Programmatic Agreement Signatories on 20 December 1996.

Also during this reporting period, Mr. Yeatts reviewed a number of trip and annual reports submitted by the Grand Canyon National Park and the Glen Canyon National Recreation Area. Mr. Wegner also requested that Mr. Yeatts review and comment on the National Park Service's draft report detailing their work surrounding the Habitat/Beach Building Experimental Flow.

Finally, during this reporting period Mr. Yeatts continued to maintain coordination between the Cultural Preservation Office, the National Park Service and the Grand Canyon Monitoring and Research Center regarding the above projects and to arrange the logistics for the data recovery activities in the spring.

The third objective consists of designing appropriate avoidance measures for the protection of shrines and other areas of traditional importance. Buffer zones may be established according to the relative sensitivity of the individual resource types.

The Hopi Tribe considers all ancestral puebloan archaeological sites to be places of traditional cultural importance and to contain shrines if they represent habitation sites. As such, a considerable amount of effort is expended, toward accomplishing this objective, by the Cultural Preservation Office in reviewing and commenting on the monitoring and suggested remedial action reports generated by the National Park Service. Through this commenting process, the Hopi Tribe communicates their traditional concerns and recommendations for the appropriate management and remedial measures for the protection of these important places.

During this reporting period, Mr. Mike Yeatts spent a considerable amount of time preparing the final report on the Hopi Tribe's research associated with the Habitat/Beach Building Experimental Test Flow. This research focused on understanding and quantifying the amount of sediment that is deposited, as a result of the flood, within the head cuts of the side channel arroyos. This is extremely important in that it will provide empirical data concerning the effectiveness of these flood flow events in stabilizing and protecting archaeological sites from the constant threat of side channel erosion. This is of primary importance to the Hopi Tribe because many of the Hopi ancestral archaeological sites located within the impact zone of the river corridor are adversely effected by these side channel arroyos. The final report covering the Hopi research was submitted to Mr. Dave Wegner, Program Manager, Glen Canyon Environmental Studies, on 10 December 1996.

The fourth objective is to actively develop a Hopi transition monitoring program to

assure the effective management and preservation of Hopi sacred sites and resources of traditional importance. Additionally, the Hopi Tribe will assist in the development of an agreement document delineating the proper treatment of human remains as specified under the Native American Graves Protection and Repatriation Act. This will include all proposed monitoring activities associated with the Interim Flows during this transition period and their potential impacts on Hopi traditional cultural properties and sacred places.

During the later portion of this period Mr. Dongoske and Mr. Yeatts developed the Hopi Tribe's traditional cultural properties, located within the Grand Canyon, identification and determination of eligibility to the National Register of Historic Places statement for submittal to the Bureau of Reclamation. Also included in this letter is the Hopi Tribe's recommendations concerning nominating the Grand Canyon as a historic district to the National Register. Currently, a draft of this statement is being reviewed by the Director of the Cultural Preservation Office and the Hopi Office of Legal Counsel. A primary concern of the Hopi Tribe is the confidentiality of the Hopi ethnographic information regarding these traditional cultural properties and the inclusion of this information in the nomination form to the Keeper of the Register. Discussion of this issue with the Bureau of Reclamation and the other Programmatic Signatories at the 5 February 1997 meeting may help to alleviate some of the Hopi concerns.

Objective five is to review reports and other technical documentation to assure that a Hopi traditional perspective and the associated concerns are duly considered and additionally to prevent inadvertent public dissemination of privileged and restricted cultural knowledge.

This objective is concurrently achieved through the efforts of the Cultural Preservation Office in participating in the Transition Work Group, all related subgroups, and the review and comment on all reports, and proposals reviewed in conjunction with the Programmatic Agreement or other aspects of the transition period. See above for a detailed accounting of these activities.

The sixth objective is to develop the Hopi/NAU office which will provide education opportunities and support for Hopi students and other students interested in pursuing technical and scientific fields. Coordinate and integrate this program with the development of the Grand Canyon Monitoring and Research Center.

Toward this end, Mike Yeatts and Kurt Dongoske have been establishing a branch of the Cultural Preservation Office within the Department of Anthropology at Northern Arizona University. During this reporting period, Mr. Yeatts has been moving his office from the old Glen Canyon Environmental Studies offices to the Anthropology Department at Northern Arizona University. The office has recently received a phone line, associated parking accommodations, and a computer. Mr. Yeatts continues to establish the general organization of the office and, in conjunction with the Anthropology Department, has developed an informational brochure explaining the organization, structure, and goals of the Hopi/NAU program. Mr. Yeatts also meets frequently with Dr. Downum and recently attended a class



of Dr. Miguel Vasquez where they were establishing a world-wide web page for information about Hopi. Mr. Yeatts also has compiled a list of Hopi and other students who are interested in the Hopi program and has contacted other students via telephone.

On 9 December 1996 Mike Yeatts, Kurt Dongoske, and Leigh Jenkins attended a meeting with the Anthropology Department, the National Park Service, the Hopi Foundation, and the NAU Native American Program at the Anthropology Department at Northern Arizona University. The purpose of this meeting was to discuss the development of a grant application for the purposes of providing Hopi students practical experience in archaeological site stabilization. The result of this meeting was that Dr. Miguel Vasquez of the Anthropology Department and Mike Yeatts of the Hopi Cultural Preservation Office would jointly develop and submit the grant application. The grant application was submitted during this reporting period. It is anticipated that if this proposal is funded, one result would be that the Hopi students, who are subsequently trained in site stabilization and restoration, could be utilized in the stabilization and preservation efforts in the Grand Canyon.

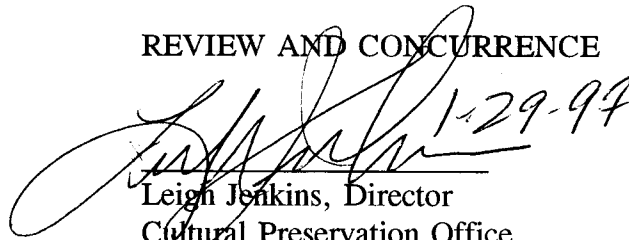
Mr. Yeatts has also been coordinating with the Grand Canyon National Park/Northern Arizona University cooperative program to establish a Hopi internship position for the purpose of participating in the Grand Canyon archaeological site monitoring program. This internship should materialize sometime during Northern Arizona University's spring semester.

The seventh objective is to review proposals, work plans, intended fieldwork, and review draft and final reports to prevent any potential conflicts described above in the previous objectives.

This objective is accomplished through the efforts detailed in objectives 1 through 5. Please see above discussion under these respective objectives for a detailed accounting of efforts and accomplishments achieved during this reporting period.

The above summarizes the Hopi Tribe's involvement as a agency in the transition period of implementing the preferred alternative delineated in the final Glen Canyon Dam Environmental Impact Statement as of 31 December 1996. If you should have any questions concerning this progress report or if you need additional information please contact Mr. Leigh Jenkins, Director, or Mr. Kurt Dongoske, Tribal Archaeologist, at 602/734-2441, extensions 751 and 761, respectively.

REVIEW AND CONCURRENCE

 1-29-97  
Leigh Jenkins, Director  
Cultural Preservation Office  
The Hopi Tribe